SINHALA T9 TEXT ENTRY SYSTEM

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Abstract

T9 Text Input is an input technology used in mobile devices. It lets words be formed by a single key press for each letter, as opposed to the multiple key press approach used in the older generation of mobile phones. It works via active reference to a dictionary of commonly used words.

T9 databases are currently available in 15 different character scripts in 62 languages including specialized language engines for Alphabetic, Chinese and Japanese languages. However it is not available for Sinhala. Development of T9 is more valuable for Sinhala than English as the number of letters assigned to a key in the Sinhala keypad is more than that of the English keypad.

We developed a system for predictive keypad text entry in Sinhala. Predictive keypad text entry allows the user to type words efficiently just pressing a key one time for each letter.

The major objectives achieved in this project are the building of a Sinhala word database, identification of common words and development of the algorithm for predictive keypad text entry and an application for the T9 PC simulator. We used the Sinhala keypad layout used in the Nokia mobile phones for our project.

A large number of Sinhala words were collected, several tools to process the words were developed and a database, mapping key sequences to prioritized lists of Sinhala words, was built. A PC application to simulate keypad text entry, update the database with new words and to change word priorities was developed.

Finally we compared the required number of key presses for Sinhala text input using T9 and using multi-tap text entry, and showed that our system enables users to enter Sinhala text easily, quickly and efficiently.